Art. IX.—*On a New Species of Cellepora from the South Australian Coast.*

By C. M. MAPLESTONE.

(With Plates VII.–IX.).

[Read 9th June, 1910.]

Some seven years ago Dr. Verco of Adelaide, S.A., sent to the late Mr. J. Dennant some Corals and Polyzoa which he had dredged in South Australian waters. The Polyzoa were submitted to me for examination, and among them I found four new species, three of which belonged to Selenaria, and as I was then dealing with some fossil Selenariidae, and as these recent forms enabled me to correct some errors that had arisen with regard to the names of the species, I included a description of them in a paper treating of the Australian Selenariidae generally;* but being busily engaged with the fossils I did not then describe a very interesting massive form which was new. Having at the time returned the specimens to Dr. Verco, I lately asked him to kindly send me a typical specimen for description and presentation to our Museum, and he most generously sent me a fine series of specimens, and stated that I was quite welcome to present them to our National Museum, which I have done.

This new species is

Cellepora verticalis, n. sp. (Pls. VII.-IX.).

The zoaria are flabellate and proliferous, being composed of vertical laminae, of which there are at first generally three (sometimes four), in an upright position connected at their inner edges, or rather extending from a vertical central line laterally. Afterwards other laminae are formed, generally at obtuse angles, one after another, until the zoaria are extremely

1 Proc Roy. Soc. Victoria (n.s.), pt. ii., p. 20, et seq.

complicated in structure. The laminae first formed consist of two single layers of zooecia, back to back, but subsequently they are overgrown with other layers of zooecia, until the laminae become thick and solid. All the laminae are perpendicular to the base of the zoarium, and this disposition of them is a constant feature, distinguishing the species from all other flabellate massive forms.

Zooecia elongate, oval; surface granulated, with occasionally a few pores, and with a few larger granulations or nodules round the margin; quite distinct and ventricose in those recently formed, but in the older ones the front wall is more highly calcified and the whole surface is raised, so that they appear quite immersed and only partially defined by a few marginal nodules, and the thyrostomes are in a depressed area. Thyrostomes subtriangular, distal angle rounded, proximal margin slightly curved. Ooecia globose, surface granulated; in the centre of the front wall, above the aperture, is a large, long, upright, elliptical area (sometimes slightly irregular in shape), with a membranous covering; ooecial opening and operculum subtriangular. Locality, Spencer Gulf (the largest specimen only), and Backstairs Passage, South Australia.

As above stated, the zoaria are composed of vertical laminae; the primary ones are generally three in number, and soon branch off at various obtuse angles to one another; the laminae are flat or nearly so, and all, even the smallest, are perpendicular to the base. In the simplest forms the laminae are few in number. One specimen has only three, joined vertically in the centre at an angle of about 120 degrees, it has developed no additional laminae, but the zooecia have grown, layer upon layer, until they are very thick. Dr. Hall has kindly photographed two of the specimens to illustrate this paper. The largest one (Pl. VII.) is 9 inches long, 8 inches wide, and 7 inches high, very solid and stony, some of the laminae being nearly half an inch thick, and the base is two inches in diameter. In the other specimen photographed (Pl. VIII.), the laminae are very numerous; there are, counting great and small, no less than 40 distinct laminae on it, most of which are composed of only two layers of zooecia; the photograph is taken looking down upon it, so as to show more clearly the disposition of the laminae.